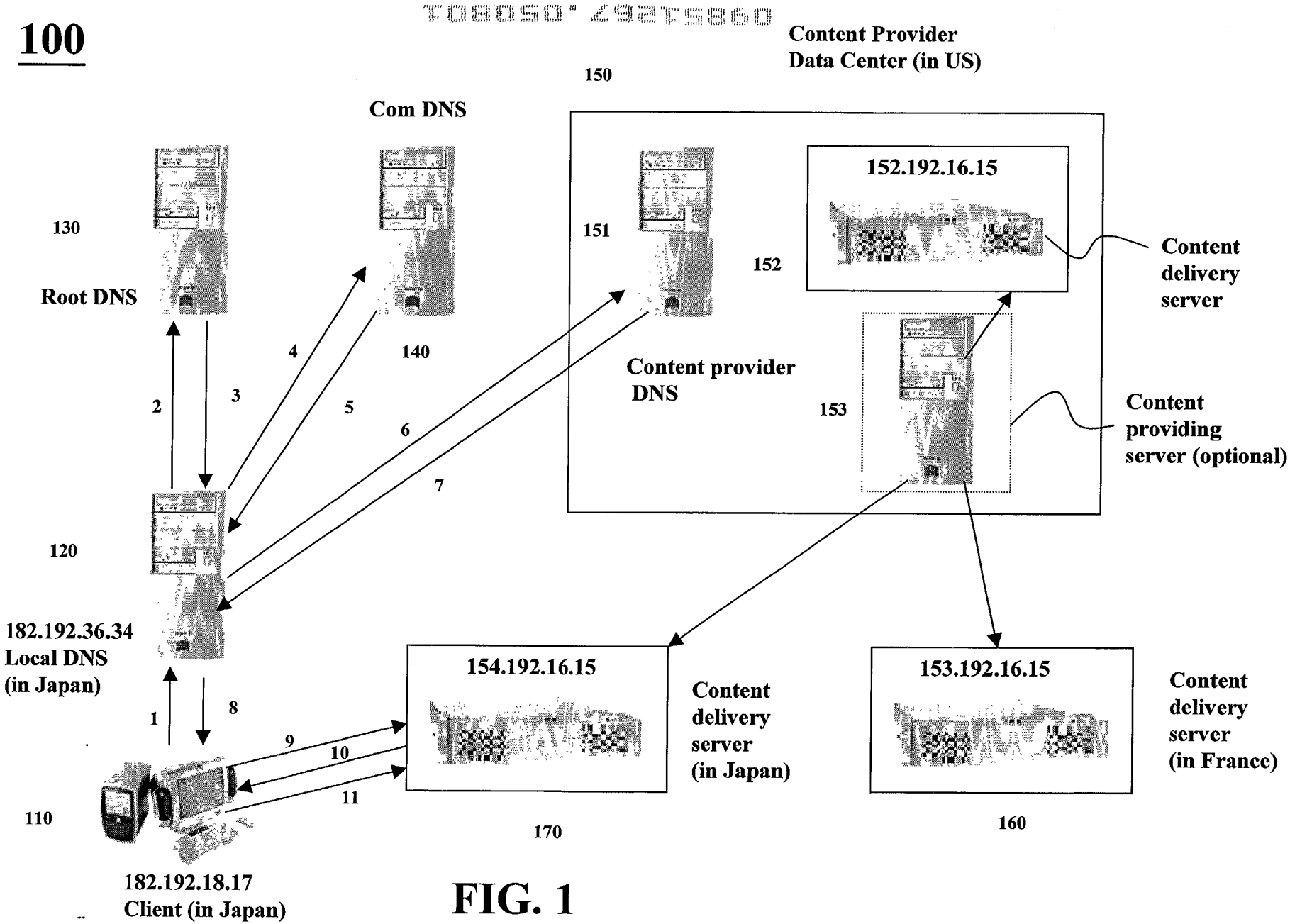
100
Content Provider
Data Center (in US)
150
Com DNS
130
Root DNS
140
151
152
152.192.16.15
Content
delivery
server
Content provider
DNS
153
Content
providing
server (optional)
2
3
4
5
6
7
120
182.192.36.34
Local DNS
(in Japan)
1
8
9
10
11
110
182.192.18.17
Client (in Japan)
154.192.16.15
Content
delivery
server
(in Japan)
170
153.192.16.15
Content
delivery
server
(in France)
160

FIG. 1

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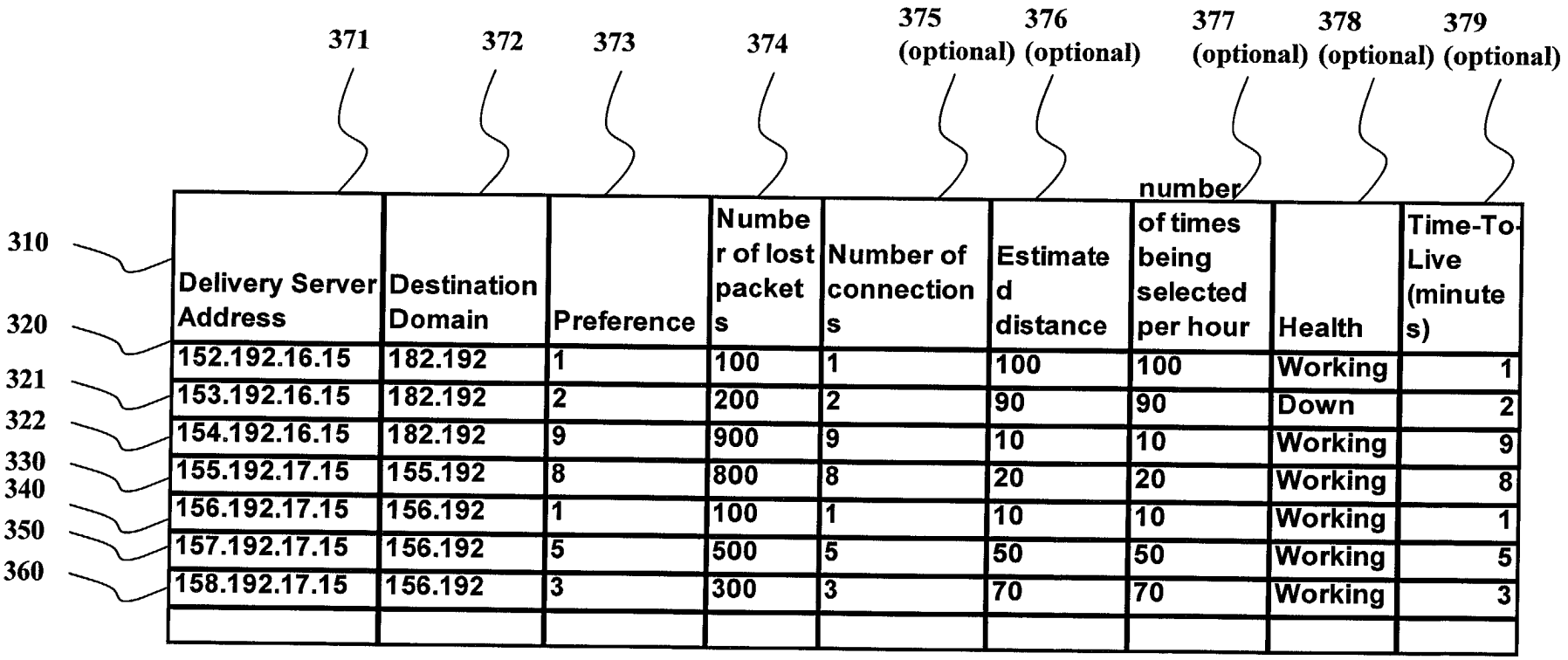
	C1	C2	C3	C4 (optional)	C5 (optional)	C6 (optional)
	Delivery Server Address	Destination Domain	Estimated Distance (milliseconds)	number of times being selected per hour	Health	Time-To-Live (minutes)
R1	152.192.16.15	182.192	100	100	Working	1
R2	153.192.16.15	182.192	90	90	Down	2
R3	154.192.16.15	182.192	10	10	Working	9
R4	155.192.17.15	155.192	20	20	Working	8
R5	156.192.17.15	156.192			Working	1
R6	157.192.17.15	156.192	50	50	Working	5
R7	158.192.17.15	156.192	70	70	Working	3
R8						

FIG. 2



310	371	372	373	374	375 (optional)	376 (optional)	377 (optional)	378 (optional)	379 (optional)
320	Delivery Server Address	Destination Domain	Preference	Number of lost packets	Number of connections	Estimated distance	number of times being selected per hour	Health	Time-To-Live (minutes)
321	152.192.16.15	182.192	1	100	1	100	100	Working	1
322	153.192.16.15	182.192	2	200	2	90	90	Down	2
330	154.192.16.15	182.192	9	900	9	10	10	Working	9
340	155.192.17.15	155.192	8	800	8	20	20	Working	8
350	156.192.17.15	156.192	1	100	1	10	10	Working	1
360	157.192.17.15	156.192	5	500	5	50	50	Working	5
	158.192.17.15	156.192	3	300	3	70	70	Working	3

FIG. 3

FIG. 4

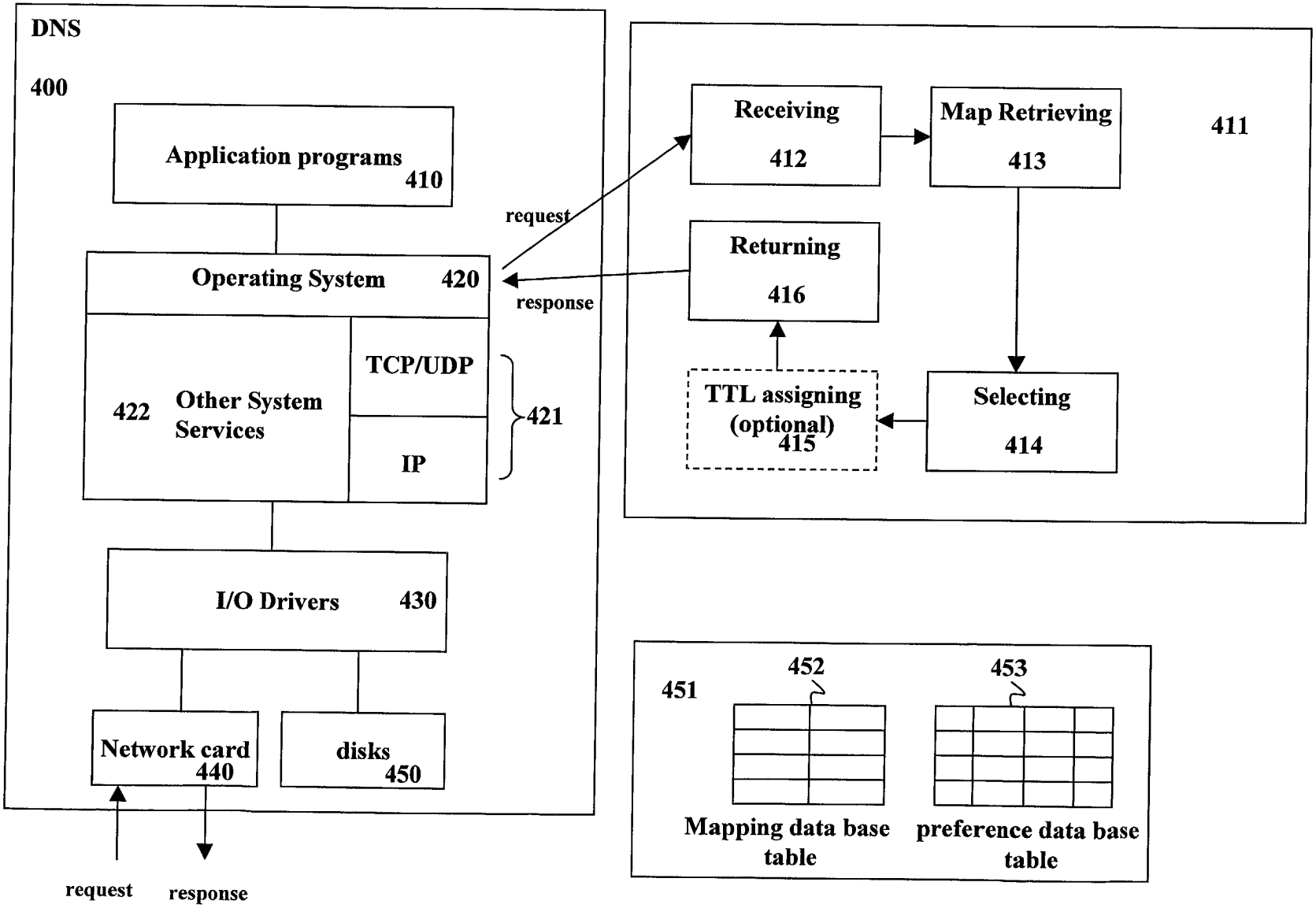

DNS
400
Application programs
410
Operating System
420
TCP/UDP
422
Other System Services
IP
421
I/O Drivers
430
Network card
440
disks
450
request
response
request
response
Receiving
412
Map Retrieving
413
411
Returning
416
TTL assigning
(optional)
415
Selecting
414
451
452
453
Mapping data base table
preference data base table

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FIG. 5a

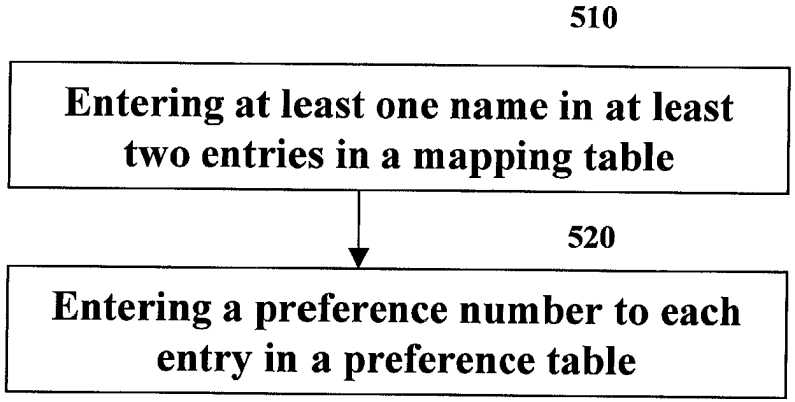


FIG. 5b

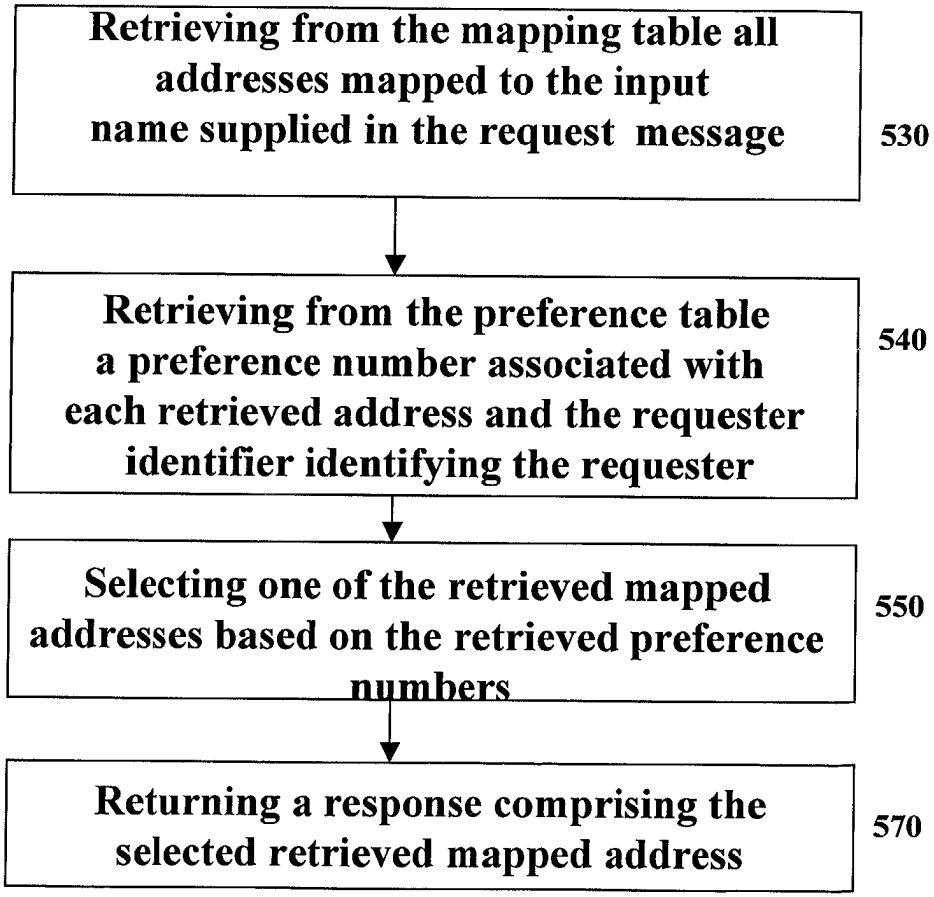


FIG. 6a

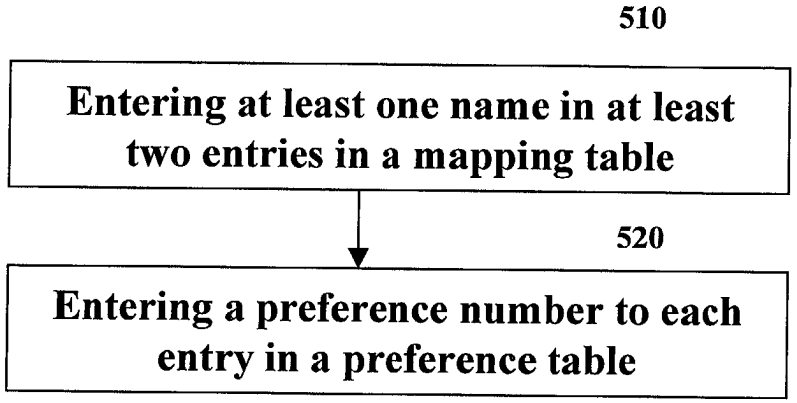
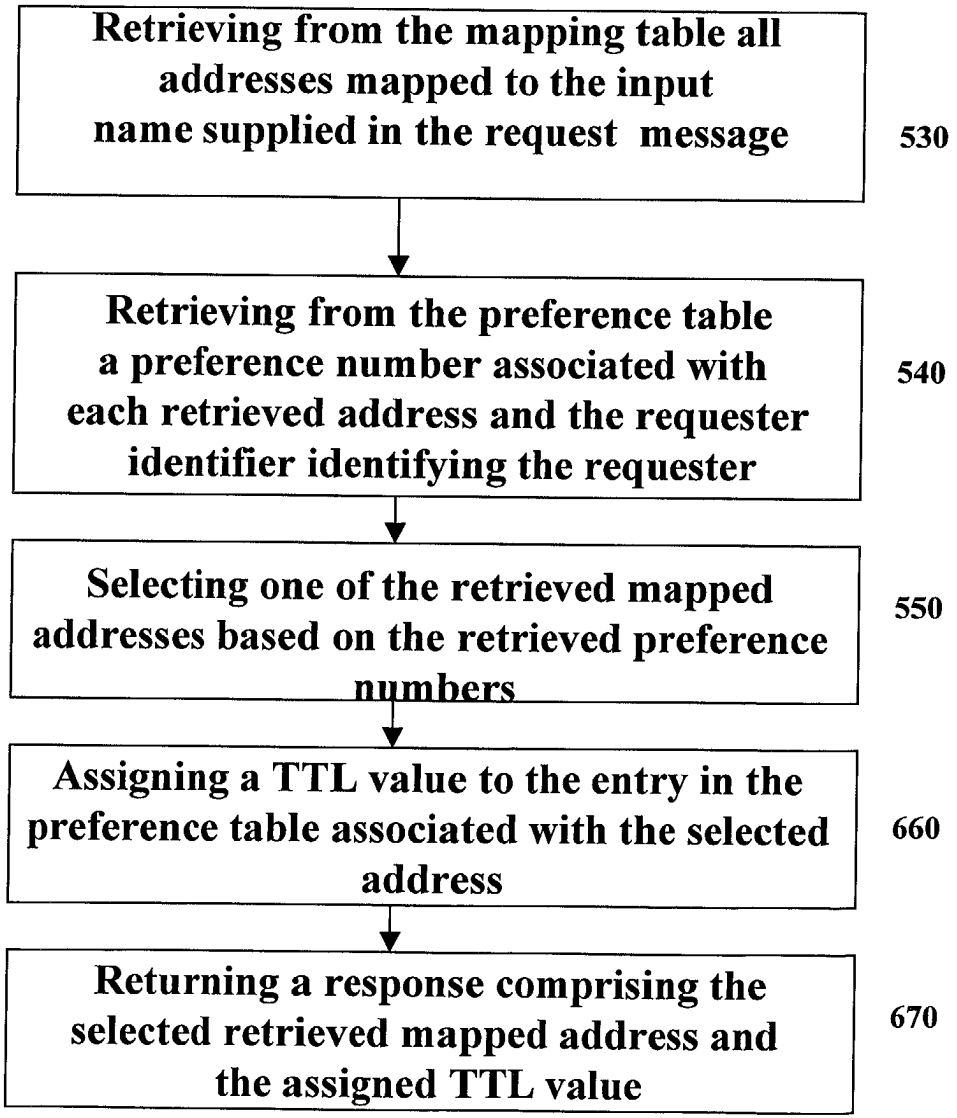

510
Entering at least one name in at least two entries in a mapping table
520
Entering a preference number to each entry in a preference table

FIG. 6b


Retrieving from the mapping table all addresses mapped to the input name supplied in the request message
530
Retrieving from the preference table a preference number associated with each retrieved address and the requester identifier identifying the requester
540
Selecting one of the retrieved mapped addresses based on the retrieved preference numbers
550
Assigning a TTL value to the entry in the preference table associated with the selected address
660
Returning a response comprising the selected retrieved mapped address and the assigned TTL value
670